10/00

OPERATION MANUAL

MANUAL NO. 056-328-00
REV. F

LAB-LINE® GENERAL PURPOSE, LOW COST INCUBATORS

MODEL NOs. 203, 203-1 403, 403-1

DESIGNERS AND MANUFACTURERS
A SUBSIDIARY of Barnstead|Thermolyne
1999 North 15th Ave., Melrose Park, IL 60160-1491 USA
PHONE: (319) 556-2241 or (800) 522-5463; FAX: (319) 589-0516

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CERTIFICATION OF DECONTAMINATION:

We cannot accept for service or credit a product that has been exposed to or contaminated with chemically or biologically toxic, as well as infectious substances, or subjected to radioactivity without first being certified as free from said contamination.

Please have your Medical and/or Safety Officer sign this form certifying that proper decontamination procedures have been followed to render the product safe and free from hazards.

Any product forwarded to us which is not accompanied by this form and a proper Return Goods Authorization Number will be returned to the sender. To obtain Return Goods Authorization Number, contact: Customer Relations Department at 1-800/LAB-LINE.

We hereby certify that the LAB-LINE INSTRUMENTS, INC. product:

Model No. _____ and Serial No. _____ ,

which is being forwarded has been properly decontaminated and is free from all toxic hazards, infectious agents, radioactivity and/or other hazards.

Company/Institution Name: _____

Street Address: _____

City: _____ State____ Zip_____

Name (please print): _____ Title _____

Signature: _____

Phone: _____

DECONTAMINATION PROCEDURE (Be Specific):

_____

_____

_____

Nature of Hazard That Required Decontamination:

_____

_____

_____

SECTION 1

INTRODUCTION

THANK YOU

for selecting Lab-Line Instruments for your equipment needs. For maximum value and ease of start-up,

PLEASE PROCEED AS FOLLOWS:

- Inspect the carton and contents for shipping damage. Notify the carrier immediately if damage is found.
- Use the Accessory Checklist when unpacking to verify that the complete unit has been received. Do not discard packing materials until all is accounted for.
- Read this Operation Manual thoroughly *before* deciding upon an appropriate location for the unit: you will want to consider the availability of power and other unit requirements, as well as user convenience.
- Insist that every operator of this unit becomes familiar with the Operation Section of this manual.
- Be sure to fill out the Warranty Registration Card and mail it in to Lab-Line Instruments within seven (7) days after receiving the unit.

IF

after reading this manual you should have any difficulties with the installation or operation instructions, please call:

Lab-Line Customer Relations Department
(319) 556-2241 or (800) 522-5463

ALL RIGHT RESERVED
The information contained in this manual is the exclusive property of Lab-Line Instruments, Inc., and has been provided solely to enable the users of the equipment described herein to operate and maintain such equipment. Any other use of this information, or the reproduction or transmission of all or any portion of this manual without prior written consent of the manufacturer is expressly prohibited. © 2000, Lab-Line Instruments, Inc.

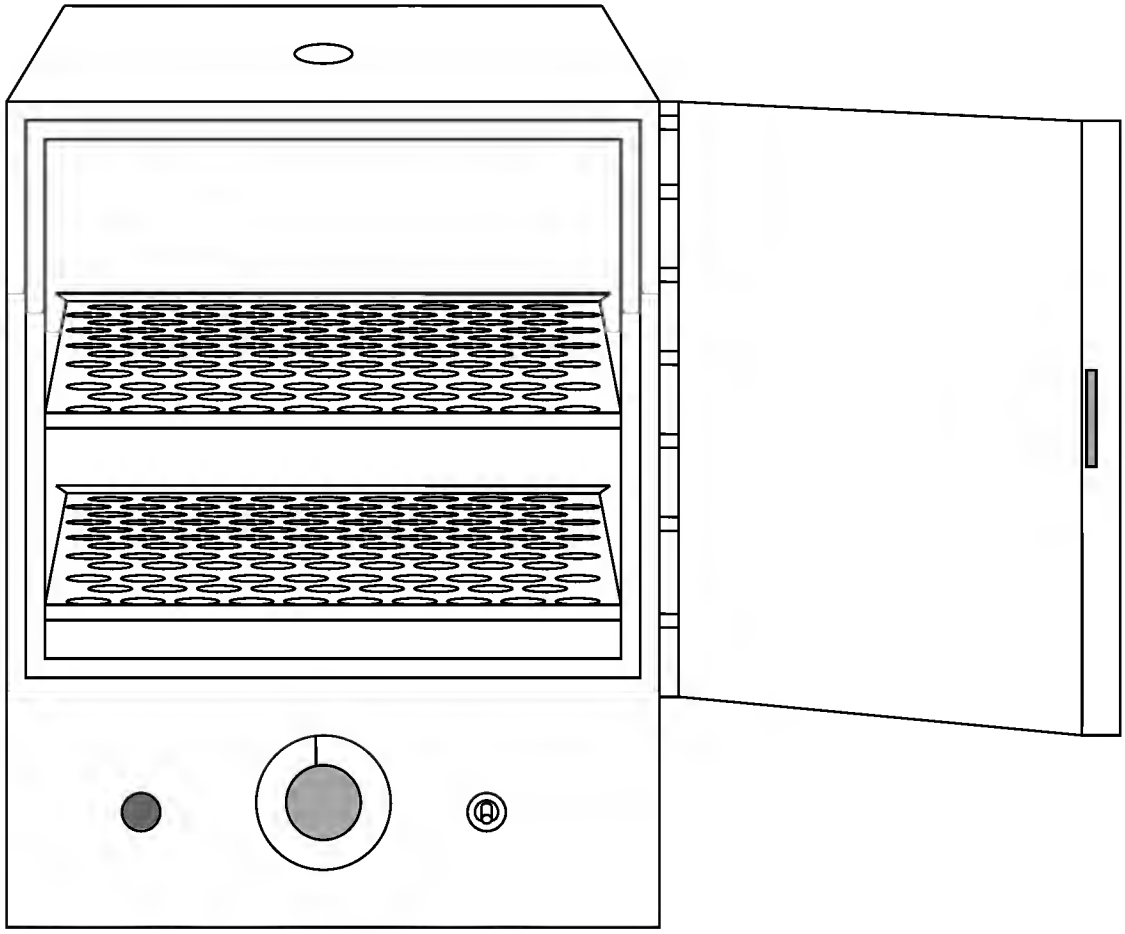
SECTION 2

DESCRIPTION

Lab-Line's General Purpose, Low Cost Incubators provide an economical, controlled environment for biochemical, bacteriological or hematological studies. A hydraulic thermostat controls temperature from slightly above ambient to 65ºC. A radiant wall heating system eliminates the hazards of open-wire heating.

Two perforated aluminum shelves can be positioned at different heights to accommodate varying loads. The thermometer holder doubles as a vent adjustment.

Models 203 and 403 require 120 VAC, 50/60 Hz; models 203-1 and 403-1 require 240 VAC, 50/60 Hz.



SECTION 3

SPECIFICATIONS

POWER REQUIREMENTS:	
Model 203:	120 VAC, 50/60 Hz, 200 Watts
Model 203-1:	240 VAC, 50/60 Hz, 200 Watts
Model 403:	120 VAC, 50/60 Hz, 400 Watts
Model 403-1:	240 VAC, 50/60 Hz, 400 Watts
TEMPERATURE RANGE:	Slightly above ambient to 65ºC.
CAPACITY:	
Models 203 and 203-1:	1.3 cu. ft. (37 liters)
Models 403 and 403-1:	5.1 cu. ft. (144 liters)
CHAMBER DIMENSIONS:	
Models 203 and 203-1:	13"W x 13"D x 13"H (33 x 33 x 33 cm)
Models 403 and 403-1:	18"W x 18"W x 27"H (46 x 46 x 69 cm)
EXTERIOR DIMENSIONS:	
Models 203 and 203-1:	15"W x 15"D x 20"H (38 x 38 x 51 cm)
Models 403 and 403-1:	21"W x 21"D x 33"H (53 x 53 x 84 cm)
SHIPPING WEIGHT:	
Models 203 and 203-1:	51 lbs. (23 kg)
Models 403 and 403-1:	90 lbs. (41 kg)

UNIT'S ENVIRONMENTAL OPERATING CONDITIONS:

POLLUTION DEGREE:	2
INSTALLATION CATEGORY:	II
ALTITUDE:	2000 Meters MSL (Mean Sea Level)
HUMIDITY:	80% maximum, non-condensing
ELECTRICAL SUPPLY:	120VAC or 240VAC
VOLTAGE TOLERANCE:	±10% of normal rated line
TEMPERATURE:	15ºC to 40ºC
PRODUCT USAGE:	This product is intended for use indoors **only**

SECTION 4

INSTALLATION

√*SHIPPING CARTON:*

This should be inspected upon delivery. When received, carefully examine for any shipping damage before unpacking. If damage is discovered, the delivering carrier should both specify and sign for the damage on your copy of the delivery receipt.

Open the carton carefully making certain that all parts are accounted for before packaging materials are discarded—after unpacking, if damage is found, promptly report it to the carrier and request a damage inspection promptly.

IMPORTANT: Failure to request an inspection of damage within a few days after receipt of shipment absolves the carrier from any liability for damage: you must call for a damage inspection promptly.

- Place the incubator in a convenient, level location that is free of drafts and extraneous vibrations.
- Level the Incubator using shims under the rubber feet as required.

  NOTE: DO NOT REMOVE THE RUBBER FEET—THEY PROVIDE A VENTING SPACE UNDERNEATH THE UNIT TO REDUCE HEAT BUILD-UP ON ELECTRICAL COMPONENTS.
- Slide shelves into the incubator chamber at the desired positions—avoid using the lowest shelf position.
- Make sure the power switch is in the **OFF** position.
- Plug the cordset into a grounded outlet that provides the electrical specifications listed on the unit's nameplate.
- Place grommet into the center of the thermometer holder. Install the thermometer, supplied with the unit, through the grommet. Adjust the immersion depth to 3-inches or 76mm (measured from the bulb to the top of the grommet). Insert the assembly into the vent on top of the incubator.

ELECTRICAL REQUIREMENTS:

120 VAC models require a 120 VAC, 50/60 Hz power source. They are supplied with a 3-wire line cord. It should be plugged into an outlet designed for 3-prong plugs. If an extension cord is used, it also should be the 3-wire grounded type. For an outlet designed to accept 2-prong plugs (ungrounded), it is required that a qualified electrician replace the outlet with a new grounded type.

240 VAC models require a 240 VAC, 50/60 Hz power source. Because of the variety of plug configurations in use worldwide for 240 VAC power, the unit is furnished with the plug removed. The user must install a plug to conform with local code and configuration requirements.

NOTE: LEAVE UNIT DISCONNECTED WHEN NOT IN USE.

SECTION 5

OPERATION

DANGER: DO NOT USE IN THE PRESENCE OF FLAMMABLE OR COMBUSTIBLE MATERIALS OR EXPLOSIVE GASES. DO NOT USE IN THE PRESENCE OF PRESSURIZED OR SEALED CONTAINERS. FIRE OR EXPLOSION MAY RESULT, CAUSING DEATH OR SEVERE INJURY.

WARNING: DO NOT HEAT ANY SUBSTANCE ABOVE A TEMPERATURE WHICH WILL CAUSE IT TO EMIT TOXIC FUMES—DEATH OR SEVERE INJURY MAY RESULT.

- Turn power switch **ON**.
- Rotate the thermostat knob clockwise to increase the temperature—the pilot light will light to indicate the heaters are energized.
- The markings around the thermostat dial are for reference **only**—the proper temperature setting will have to be approximated.
- Allow incubator chamber temperature to stabilize before making further adjustments. When the pilot light goes off, the heaters are off for a brief cooling cycle. After several pilot light on/off cycles, the temperature has stabilized.
- Read the thermometer. To adjust the temperature, rotate thermostat knob clockwise to raise the temperature—counterclockwise to lower the temperature.
- Allow time for the temperature to stabilize before making further adjustments.
- When desired temperature is achieved, load the Incubator. Place load about 1-inch away from the walls to allow good air circulation in the chamber.
- Insofar as possible keep the Incubator door closed, in order to reduce possibility of fungus growth starting from airborne organisms entering the chamber.

SECTION 6

MAINTENANCE

BE ADVISED:

NOTE: MAKE NO ATTEMPT TO SERVICE OR REPAIR A LAB-LINE PRODUCT UNDER WARRANTY BEFORE CONSULTING YOUR LAB-LINE DEALER. AFTER THE WARRANTY PERIOD, SUCH CONSULTATION IS STILL ADVISED, ESPECIALLY WHEN THE REPAIR MAY BE TECHNICALLY SOPHISTICATED OR DIFFICULT.

IF ASSISTANCE IS NEEDED BEYOND WHAT THE DISTRIBUTOR CAN PROVIDE, PLEASE CALL THE LAB-LINE CUSTOMER RELATIONS DEPARTMENT AT (319) 556-2241 OR (800) 522-5463. NO MERCHANDISE, HOWEVER, SHOULD BE RETURNED DIRECTLY TO LAB-LINE WITHOUT PRIOR APPROVAL FROM LAB-LINE.

CAUTION: DISCONNECT PLUG FROM ELECTRICAL OUTLET BEFORE ATTEMPTING ANY MAINTENANCE OR REPAIR OF THIS UNIT.

ROUTINE CLEANING:

- Turn power switch to **OFF** position and unplug the unit before starting to clean the Incubator.
- Clean the exterior with water and a mild detergent solution using a cloth or soft sponge. Rinse with clean water and dry thoroughly.
- Clean the shelves and interior with water and mild detergent solution only. Do not use abrasives, cleansers or scouring pads. Rinse and dry completely.

SERVICING AND REPAIRS:

- Turn power switch to **OFF** position and unplug the unit before starting to service the Incubator.
- The thermostat bulb is located inside the Incubator chamber under the safety shield floor.

MAINTENANCE: (Con't)

SERVICING AND REPAIRS: (Con't)

- Accessing heaters on Models 203, 203-1, 403 and 403-1:
  - θ Remove screws from back panel of unit.
  - θ Remove insulation.
  - θ Remove flat-plate heaters by pulling on heater wires—heaters slide out from slide-brackets.
  - θ Identify heater(s) to be replaced.
  - θ Unscrew wires from heater(s) to be replaced.
  - θ Attach wires to new heater(s).
  - θ Replace new heater(s) into heater slide-bracket(s).
  - θ Replace insulation.
  - θ Replace back panel.

- Replacing switch, thermostat or heat indicator lamp on Models 203, 203-1, 403 and 403-1:
  - θ Place unit on its side.
  - θ Remove bottom panel.
  - θ Disconnect appropriate wire.
  - θ Replace component(s), attach wires.
  - θ Replace bottom panel.

SECTION 7

REPLACEMENT PARTS

DESCRIPTION	PART NUMBER
Models 203 and 203-1:	
Cordset:	470-105-00
Gasket:	530-245-00
Grommet (for thermometer holder):	790-022-00
Heater (2), 100 watt:	340-152-00
Knob:	560-233-00
Shelf:	810-442-00
Status Lamp Base, Model 203:	360-233-01
Status Lamp Base, Model 203-1:	360-233-01
Status Lamp Lens (amber):	360-235-00
120V Switch:	440-359-00
240V Switch:	440-292-00
Thermometer Holder:	910-039-00
Thermometer:	910-136-00
Thermostat:	920-232-00
Wiring Schematics (120V):	228-757-00
Wiring Schematics (240V):	228-758-00
Models 403 and 403-1:	
Cordset:	470-105-00
Gasket:	530-243-00
Foot::	790-225-00
Grommet (for thermometer holder):	790-022-00
Heater (4), 100 watt:	340-152-00
Knob:	560-233-00
Shelf (2):	810-441-00
Status Lamp Base, Model 403:	360-233-01
Status Lamp Base, Model 403-1:	360-233-01
Status Lamp Lens (amber):	360-235-00
120V Switch:	440-359-00
240V Switch:	440-292-00
Thermometer Holder:	910-039-00
Thermometer:	910-136-00
Thermostat:	920-232-00
Wiring Schematics (120V):	228-755-00
Wiring Schematics (240V):	228-756-00

NEED A PART? CALL THE LAB-LINE PARTS HOTLINE.
CALL: (319) 556-2241 or (800) 522-5463; FAX: (319) 589-0516.

LAB-LINE RESERVES THE RIGHT TO MAKE CHANGES TO SPECIFICATIONS WITHOUT PRIOR NOTICE.

WARRANTY

LAB-LINE INSTRUMENTS, INC. ("Lab-Line") warrants that the product manufactured by Lab-Line shall be free of defects in materials and workmanship for a period of time defined on the following page from the first to occur of (i) the date the product is sold by Lab-Line or (ii) the date the product is purchased by the original retail customer (the "Commencement Date"). Except as expressly stated above,

LAB-LINE MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO THE PRODUCTS AND EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF DESIGN, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

An authorized representative of Lab-Line must perform all warranty inspections. In the event of a defect covered by Lab-Line's warranty, Lab-Line shall, as its sole obligation and exclusive remedy, provide free replacement parts to remedy the defective product. In addition, for products sold by Lab-Line within the continental United States or Canada, Lab-Line shall provide free labor to repair the products with the replacement parts, but only for a period of ninety (90) days from the Commencement Date.

Lab-Line's warranty provided hereunder shall be null and void and without further force or effect if there is any (i) repair made to the product by a party other than Lab-Line or its duly authorized service representative, (ii) misuse (including use inconsistent with written operating instructions for the product), mishandling, contamination, overheating, modification or alteration of the product by any customer or third party or (iii) use of replacement parts that are obtained from a party who is not an authorized dealer of Lab-Line.

IN NO EVENT SHALL LAB-LINE BE LIABLE TO ANY PARTY FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR ANY DAMAGES RESULTING FROM LOSS OF USE OR PROFITS, ANTICIPATED OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THE SALE, USE OR PERFORMANCE OF ANY PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE), ANY THEORY OF STRICT LIABILITY OR REGULATORY ACTION.

The name of your nearest authorized Lab-Line dealer may be obtained by calling 1-800-522-5463.

DESIGNERS AND MANUFACTURERS
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1999 North 15th Ave., Melrose Park, IL 60160-1491 USA
PHONE: (319) 556-2241 or (800) 522-5463; FAX: (319) 589-0516

WARRANTY

12 MONTH PARTS WARRANTY:

- All Environmental Chambers
- Low Temperature B. O. D. Incubators
- Animal Study Chamber
- Controlled Environment Centers
- Biological Work Station
- Refrigerators, Freezers
- Chromatography Refrigerators (5 year parts warranty on compressor only)
- Large Capacity Refrigerators and Freezers (5 year parts warranty on compressor only)

24 MONTH PARTS WARRANTY:

- Frame Clamps, Frame Sets, Lab Jacks
- Saybolt Viscosimeter
- Timers, Samplers, Flasks
- Saf-T-Shield, Safety Tongs
- All Incubators & Ovens
- Dual Action Open Air Shaker
- Reciprocating Shakers (open air and water bath)
- Rockers and Rotators
- Low Cost Shakers
- Environ Blok Shaker
- Titer Plate Shaker
- Multi Wrist Shaker
- Water Baths (excluding Aquabaths), Ultrasonic Cleaners
- Slide Warmers
- Mixers, Stirrers, Hotplates
- Thermal Cyclers
- Blok Heaters
- Aquabaths, lifetime warranty on heaters

LIFETIME PARTS WARRANTY:

- All **ORBITAL** Shakers (not carrying a 24 month parts warranty) offer a lifetime parts warranty on the drive mechanism and a 5 year warranty on all other parts
- Refrigerated Orbital Shakers carry a lifetime warranty on the drive mechanism, 1 year parts warranty on the compressor, and a 5 year warranty on all other parts.

**FIRST IN INSTRUMENTS SERVICING SCIENCE, INDUSTRY,
RESEARCH AND EDUCATION
SINCE 1908.**

ACCESSORY CHECKLIST

The following loose parts and accessories are packed with this unit. Before discarding any packing materials, please be sure that nothing has been overlooked.

MODEL NOs: 203, 203-1, 403, 403-1

CHECKED BY: _____

DATE _____

PACKED BY _____

CHECKED	ITEM	PART NUMBER	QUANTITY
_____	Operation Manual	056-328-00	1
_____	Thermometer Holder	910-039-00	1
_____	Thermometer	910-136-00	1
_____	Shelves, Models 203, 203-1	810-442-00	2
_____	Shelves, Models 403, 403-1	810-441-00	2
_____	Warranty Card	528-022-00	1
_____	Voltage Warning Tag (240 Volt)	528-009-00	1